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ABSTRACT

These studies, conducted at an experimental secondary school which sought to create "community felling" by not separating students by grade or ability, looked at the students' social patterns and groupings and at the impressions which subgroups had of own group and other groups. The first is based on an all-school sociometric questionnaire; the 2nd, on interviews with members of friendship groups that were exposed in the sociometric. It was found that there were some readily identifiable friendship groups, and that they were more homogeneous than diverse, there were many isolates who received no choices at all; there were few cross-sex or cross-grade-level friendship choices; and choices within the Home Groups showed great differences from the choices made in the school at large. There were few cross-race choices. Students in some of the clear-cut friendship groups frequently lacked information about others, had negative feelings towards them, and spoke of groups not identifiable in the sociometric in terms of stereotypic language. Particular efforts were made to minimize differences amongst the individuals within the own groups. (KS)

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TWO PAPERS ON STUDENT SOCIAL STRUCTURE

**Cambridge Pilot School Program
Cambridge, Mass.**

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**TWO PAPERS ON THE STUDENT SOCIAL
STRUCTURE AT THE PILOT SCHOOL**

Judy Steinberg

August, 1971

**Cambridge Pilot School Program
Cambridge, Mass.**

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INTRODUCTION

An important part of the ideology of new and experimental secondary schools being started lately rests on rejection of the social-class stratifications and differential treatments that are such an obvious part of traditional high schools and which have been documented since Elmtown's Youth. Radical critics assume a priori that the "tracking" system serves the capitalists' need for submissive labor, but even drier scholars have tried to uncover the precise nature of the educational differences between school tracks as a first step to deciding if they help or hurt. Of course, the need to make policy races ahead of the necessary information-base, and it is not surprising that new schools operated by socially-conscious liberal professionals (who often have at least a little guilt about their own positions) have usually flatly done away with divisions of students, but without much sense of positive alternatives. Socially-conscious liberal lawyers have managed to get tracking systems thrown out by court action in some places, most notably in Washington, D.C., where the plan was patently racist in operation. Lawyers and courts have been silent, however, on more rational alternative classification schemes. Such actions rest on several hopes, including the hope that a revised school environment and uniformly high expectations can unlock potential in every student, not just in a privileged minority, and the hope also that bitter divisions outside the school (along lines of sex, race, social class or life-style) can somehow be softened within the new environment and that cross-cultural communication can be encouraged as educational for everyone.

Sadly, the "technology" of the new settings has not always been up to the tasks implied in the foregoing hopes. While sheer physical violence and manifest anger may decrease as schools find more sympathetic adults, adopt

less coercive rules, and set up more engaging courses, the more complex process of unlocking stereotypes and revising long-held conceptions of worthwhile activities has lagged. Many new schools find that subgroups of students do not accept some of the "communitarian" goals of the founders or seem not at all to aspire to increased empathy or intergroup communication.

Because the Cambridge Pilot School began with many similar ideas, during the school's second year several related studies were done to look at students' social patterns and groupings, at the impressions which subgroups had of own group and other groups, at the process of influence of staff on students--from both viewpoints, and at the governance system which was to be a specific area for merging separate interests into something larger. The two papers which follow are a part of those efforts, and other reports will continue the theme ("Governance at the Pilot School" for one). The first is based on an all-school sociometric given in November, 1970; the second is based on interviews with members of some of the friendship ~~etc.~~ that turned up in the sociometric.

The Pilot School is an experimental sub-school, located within Rindge Technical High School in Cambridge, Mass. The school has 120 students, divided evenly between the freshman and sophomore years--though that particular status carries almost no practical effect. Students are volunteers, chosen in a stratified random drawing that maintains the widest possible cross-section of the city's youngsters on every variable for which there is information (neighborhood, sex, race, school-achievement, future plans, type of high school desired, etc.). Staff for the school are recruited from the regular teachers in the Cambridge High Schools, from experienced teachers studying for advanced degrees at the Harvard Graduate School of Education, faculty at the

university, and others from the community--both professional teachers, other non-teaching professionals, parents, and college students. Students may enroll in a variety of usual and unusual courses offered within the Pilot School, and may take subjects within the two regular high schools also--although the latter has proved less attractive in practice. In the 1970-71 school year, all students were required to be involved in a daily meeting called Home Group, in which twelve randomly-chosen students and two staff decided their own agenda of activities. At least one implicit goal behind these ten groups was to engender conversation and shared activity across some of the school's usual dividing lines. The school does not separate students by grade or ability, so most classes are open to anyone. Students have individual faculty advisers, and there are no pre-planned "courses of study" which would dictate a whole package of courses; these two features of the school's guidance approach are intended to encourage individual attention for each student.

These two papers seem to me to show the distance that remains between the vision of the school planners (this writer included), and the real world. (And from what we have heard, there are similar situations in other new schools.) We find that there are some readily identifiable friendship groups that are more homogeneous than diverse; there are also many isolates who receive no choices at all. There are not a great many cross-sex or cross-grade-level friendship choices, nor did choices within Home Groups show great differences from the choices made in the school at large. Cross-race choices are not overwhelming either. Further, when interviewed, students in some of the clear-cut friendship groups lacked elementary information about others unlike themselves, used traditional stereotypic language ("hippies," etc.) to describe groups that aren't identifiable in the sociometric, and added considerable negative feeling toward groups other than their own.

Such results can prompt reflections in several obvious directions. First, do the staffs of new schools adequately assess the barriers to the kind of attitude-change they seem to wish, and do they adapt their program to what is known about the dynamics of such change? Words alone have been found to be notoriously ineffective, except on a very limited range of people. Second, on what basis does one subgroup prescribe increased integration of a great many other subgroups in the society? It may be heresy to suggest that there might be excellent non-educational functional reasons for tracking, and that studies of its educational effects would accordingly show no effect since they would be missing the point. For our new schools I suspect we have not adequately defined what are the common interests on which a new school community could be built. (Rasberry Exercises, a how-to-do-it book for starting a free school advises on selecting students, parents, and staff with a careful eye to homogeneity of outlook, life-style, and general values, lest the strains and conflicts destroy the school.) And third, what is the relationship of community to education? It is understandable that in the absence of stable, supportive, and intimate groups in the larger society, that reformers would like to create them; but it is not so clear that the school is the best target site, especially the urban school. Urban students may be asking something entirely different from the schools, and the fact that the present system is a miserable shambles in most cities should not be taken as evidence that what your random idealistic reformer has to offer is the necessary remedy.

These are speculations, subject to clarification or rejection with much further experience and data. I expect these papers will start in all of us who have worked with the Pilot School a serious line of thinking.

ANALYSIS OF A SOCIO METRIC: FRIENDSHIP GROUPS AND CHOICES
WITHIN THE PILOT SCHOOL, NOVEMBER, 1970

Introduction

Since October I have been spending time in the Pilot School as part of an independent study at the Graduate School of Education. What became clear to me very early was the enormous differences between the various groups of students, and the complexities of their interaction in the school. Since the Pilot School's organization allowed much greater physical freedom, and its behavior norms allowed almost any activity, and the course structure did not segregate large groups of students into whole isolated sequences of courses, the students' world seemed drastically different. I wanted to try to understand it, to see what joined the group and what divided it, and to see how the efforts of the staff meshed with the students' state of mind. I saw the TV documentary "16 in Webster Groves" and was interested in the values and aspirations of the Pilot School students, ten years or more away from the easy certainties of suburban St. Louis and post-Korea affluence.

Once I decided to focus on groups of students, the question obviously became how to compose them. Don Oliver and Vicky Steinitz at HGSE have a long-range project under way now in Medford to explore the larger question of the categories students themselves use to organize the social world of school--smart, dumb, greaser, hippie, etc. One could ask teachers to describe the network of student groupings they perceive. I decided to begin with "friendship" groups, as defined by a sociometric questionnaire. After defining these groups--or asking them to define themselves--I planned to interview members of the most prominent groups individually. After that I would bring together the group members for a discussion based on the similarities and differences which the interviews disclosed, and touching also on each group's

views of other groups. This paper reports only the analysis of the sociometric.

Description of the sociometric technique

To determine the groups of friends, I gave a "sociometric questionnaire" to each student, asking each to list the three people in the school with whom they would like to eat lunch. While many of the results could be given by any staff member who knows the students and who observes them carefully, there were also some interesting choices that might not be obvious and some that might, in fact, be surprising.

Before discussing the responses, let me briefly describe the method.

Sociometry is a technique devised by J.S. Moreno to measure the social organization of groups of people. By having members of a group choose associates from that group for various activities, one can get--literally--a picture of several aspects of group structure: attractions and repulsions between individuals, cliques within the larger group, cleavages between factions, the "stars" who get many choices, the isolates who get none, and the mutual choices or pairs. Moreno describes "typical patterns" which have been found through repeated use of the technique, some of which we might keep in mind in looking at the Pilot School results. For instance, he speaks of a "sociodynamic law," according to which there is an uneven distribution of choices within a group. About 60% of the members will fall in the lower range of choices. According to Moreno, boys and girls have the same proportion of stars and of isolates, but mutual choices (which usually comprise two out of five choices) appear more with girls than boys. Low status members tend to choose high status members, while high status members choose each other. Thus the low status members will be involved in fewer mutual choices. Sex cleavages, or separation between boys and girls in their choices

are greatest on questions relating to "play" activity (which I think we can consider lunch time to be), although these results, according to Moreno, do vary with the type of school. Results from a sociometric questionnaire are most stable in high school and college subjects, with the positions of leadership and isolation more stable than the in-between positions. The stability of the Pilot School results, however, is more questionable since we asked for only three positive choices. According to Moreno, a five-choice question is best when asking only for positive choices, rather than for both positive and negative.

Although the limitations of the technique are vast, it can be taken as a starting point, with the results checked in other ways. Nor do we need to go to the mystical interpretations which Moreno confidently draws from the simple data. (His books are filled with exotic drawings, discussions of fluxes and forces and laws.) It is a convenient way to begin to find the natural friendship groups of the school.

General results

Let us look, then at the general picture of friendship groups which emerges from the data. At the time when I asked for their choices, there were 120 students in the school (November, 1970). Some categorizations of these 120 are as follows:

59 sophomores	31 black	65 boys
61 freshmen	89 white	55 girls

I received 296 responses (choices), out of a possible total of 360. The smaller total of actual responses represent students who refused to fill out the questionnaire or could think of no one, students who gave only one or two responses, six choices of staff members, and one boy I could never find in school.

The overall distribution of choices made gives us a general picture of the social network of the school. Thirty-three students, or 28% of the school, emerged as "members" of six major friendship groups of four or more students. In addition to these students, another 23 were involved in mutual pairs and nine in mutual threesomes. In all, 65 (or 54% of the school) were involved in some sort of friendship relationship--pair, threesome or larger group.

Isolates Almost half the students, then, are not involved in such relationships either within a group or in mutual choices with others. This proportion looms even larger when we see that 23 students--or almost 20% of the school--were "isolates." That is, they received no choices from any other student. Let us look briefly at this group (or non-group) before going on to look more closely at the friendship groups. Seventeen of the students who were not chosen were boys, and six were girls--26% and 11% respectively of the total numbers of boys and girls in the school. Thus, contrary to Moreno's prediction of equal boy and girl isolates, boys seem more likely to be isolated in the Pilot School. As we see later, girls are generally better-integrated into the friendship structure, and are more involved in mutual choices as Moreno did predict. These results are more a reflection of the social behavior of girls in general at this age, than of some variables peculiar to the Pilot School--from what I have been able to see at least.

We might expect to find many more freshmen among the isolates, particularly since the question was asked early in the year; however, there is slight difference between the grades, 21% of freshmen were isolates, and 17% of sophomores. The summer program may indeed have helped students mingle and become acquainted before the actual start of the school year--although school class does seem important in some later comparisons I shall make.

Finally, there seem to be some differences in proportion of isolates along racial lines. Only three black students, as compared with twenty white students--10% vs. 22% of their respective populations--were isolated. A very tentative theory might argue that the black minority tends to form a more coherent group than does the white majority, or to make a greater effort to include everyone on the friendship network.

Individual temperament and personality doubtless play a large role in determining who is and who is not an isolate, and we would like to have been able to look into the question further. "Marginal men" who fit easily into no particular social grouping may be one of the most important non-groups in the school, and may include youngsters who are making difficult transitions from one sort of past to a different sort of future. We would like to know more about why individuals "don't fit in anywhere," and to what extent such conflicts are being resolved by students. They might also give another view of the existing network of groups.

So far we have accounted for 88 students (73%) in either the six major groups, smaller mutual friendships, or isolates. The rest of the school student body received at least one choice each but are not part of either a major group, mutual choice, or threesome. They are often connected to one or more of the larger groups by their choice of a group member, or they may in turn be chosen by an isolate. We will look at the aggregate characteristics of all these choices later, but we turn now to examine the six major friendship groups.

Major friendship groups

In analyzing student choices, I identified six clusters which met several arbitrary criteria I made up for a well-defined natural friendship group:

1. A group has at least four students
2. Over half the possible choices fall within the group
3. Each group member is picked at least once by someone within the group
4. Each member is involved in at least three choices within the group
(i.e. chosen or chooses others)
5. At least one choice by each member falls within the group.

Thirty-three students in all were involved in these groups, which are briefly described in Table 1.

Table 1
SIX MAJOR FRIENDSHIP GROUPS, Nov., 1970

Group #	N	School class	Sex	Race	# of within-group choices	# of ch. fr. outside
1	7	all sophs	M	3 W 4 B	20/21	17
2	5	all sophs	F	all W	11/15	13
3	5	all sophs	F	all W	15/15	2
4	8	6 sophs 2 freshmen	F	7 B 1 W	24/24	4
5	4	3 freshmen 1 soph	F	all W	8/12	2
6	4	3 freshmen 1 soph	F	3 W 1 B	8/12	4

The majority (almost 80%) of the individuals are girls, which may not be surprising in view of the folklore about "cliquishness" in adolescent girls and Moreno's experience that far more girls than boys were involved in mutual choices--which we might extrapolate to include groups as extended patterns of mutual choices.

Some what more surprising was the appearance of only one well-defined group among the boys. This group was by far the most attractive to other students outside it, and was the most integrated racially. In individual inter-

views, however, some black members of this group carefully distinguished topics about which they discussed freely and others they raised only with black friends within the group--the latter having to do with the Panthers, protests, and so forth. There were five mutual choices within the group, but only one was interracial, suggesting that the most stable points were within races. Not only was this group the most attractive as a whole, but three of the school's four "stars"--students who received the greatest total number of personal choices--were in this boys' group, and were in fact the top three.*

In trying to account for the absence of other boy groups, we might guess that the seeming dominance of this one group of sophomores leads others to choose them or to try to belong to that gang. Ten outside boys chose this group's members--about 17% of all the boys. I think another part of the explanation lies in the 16 boys who gave no choices at all or less than three. (Only two girls did this.) This fact suggests not the diversion of choices to one group, but the absence of many substantial friendships among the boys in general. Without attempting to analyze the phenomenon, we would note that for girls, claiming friendships and thinking of groups seems more important than for boys.

The second group, of five sophomore girls, appears to be related to the sophomore boys' group and was second in attractiveness themselves. Members of this group received 13 choices from non-members; the fourth "star" is in this group. Two of these girls chose into the boys group, and several mentioned in interviews that they liked those boys or did things in company.

To me, as a naive newcomer to the school, these two groups were obvious

*These top four students, 3.5% of the total population, received 14% of the choices (42/297). Again, Moreno's prediction of equal numbers of stars between boys and girls does not hold. Perhaps we should have included more than the four only, but the line fell easily there at a natural break.

and visible. There is often horseplay between the members, both during and after school, and subsets play card together incessantly. In later interviews, a number of students who were not in either group referred to the two combined as the "in crowd." Several of the groups' members are natural school leaders and take active parts in staff meetings, councils, courts, athletics, etc. Students in the other four groups, however, reject the idea that these two are an "in crowd," and take that designation for themselves. And despite my own observations of the two groups together often, and despite the lumping together done by some other students, the group members' own choices were almost completely within their groups. Only one boy was chosen by two members of the girls' group. Moreno predicts substantial sex cleavage, and in general we find that at the school--over 90% of choices are within sex, as we will report later.

The third group of five white sophomore girls is startlingly different from the brash and visible preceding groups. Visitors would be unaware of this third group, yet it proved to be the tightest, most exclusive of all. No choices were made outside the group, and only two outsiders chose into it. (Both the first two groups included members who chose outside the group.) This group of girls seems to function independently of other students altogether, spending free time not in horseplay or in the office, but in a girls' bathroom some distance from the school's rooms.

The fourth group is also girls only, and would probably be more familiar and visible to someone familiar with the school. This group included seven black girls, of whom five are sophomores and two are freshmen, and one white girl. None of the members made choices outside the group. Other students see this group as "the black girls" despite the fact that the white sophomore is a part of it. (She was chosen only once, but made all three of her choices within the group.) This girl did state in a recent conversation that she

"used to hang out with them" so maybe things have changed. Four non-group members chose into this group, three black and one white. A few other girls have mentioned in interviews that they are afraid of some of this group's members, and some have indeed been involved in episodes with other students in the school. We note that although there are other black girls in the school, they do not form a group as do these girls, nor are they included in this group.

Finally we come to two groups of four girls, each with three freshmen and a sophomore, which appeared somewhat less tightly-organized than the previous groups. Their proportion of within-group choices was smaller, and they were not chosen into by others as often. Perhaps they are not even seen as groups by others, since the individuals are intertwined with many non-group friends through chains of choices. From my own observation I would not have noticed these last two groups as quickly as others, nor would I expect them to command much attention--especially since the majority of members are freshmen. My interviews with two members of one of these groups included a discussion of which groups were dominant in the school; these two at least did not feel there even was such a hierarchy as I have suggested.

As I looked over these groups, I wondered if isolates chose these groups' members more often than other students did. I first found that isolates often make no choices, in addition to receiving none--in fact 22% of isolates make no choices, compared with 11% of the total student group. Of the isolates who did make choices ($N = 18$), almost half chose into the two most attractive groups, compared with about a quarter of the total outside group who chose in. It seems then, that isolates who do make choices have a greater tendency than non-isolates to choose from the most attractive groups. It is impossible to tell, of course, whether this represents a "desire to be in" or simply the

first names that come to mind are the popular ones.

Finally, it occurred to me to check whether students who received no choices were more inclined to choose people in their Home Group than were non-isolates. My thinking was that since most of the questionnaires were given out in Home Group, a student who had no friends in the school might choose people around him when he had the paper in front of him. I found that while two of the isolates made all three choices from within the Home Group, the overall percentage who did so was roughly the same within the isolates and the school at large.

Interracial choices

I would now like to move from the choices that fell into definable groups to some features of the total pattern of responses. When considering people's friendship choices and trying to understand the reasons underlying them, it would of course be useful to have a wide range of information against which to array the "dependent" variable of choice. We will consider whether the variables of race, sex, and school class can tell us much, and we will find that while suggestive trends can be teased out--obviously the picture is more complex than that. We will also look at whether Home Group membership seems to influence friendship choice.

The distribution of choices along racial lines were as follows. Of all 296 responses received, 170 choices were between two white students; 50 were between blacks; 76 were interracial, with 51 being white-to-black and 25 the alternative, black-to-white.

For all students

same race	74%
other race	26

For white students

same race	77%
other race	23

For black students

same race	66%
other race	34

In trying to explain why proportionately fewer white students made interracial choices, we can look at the effects of school class and sex. School class shows no differences, and sex alone contributes only the non-surprising datum that white girls made the fewest interracial choices in proportion to their numbers in the school. However school class and sex together show that sophomore boys and freshmen girls are making the most interracial choices, and the pattern holds within both black and white groups.* It may be that tensions between black and white girls, especially sophomores, may account for the smaller proportion of white girls choosing blacks, but of course there may be many other factors involved. Certainly one would expect community pressures to disfavor white-to-black choices, and I have heard of several students' experiences with their parents on just those grounds. We will note later that no black student chose another black student of the opposite sex, which in turn lowers the total number of black-to-black choices. An implication for the future would be that when black students begin to date each other, the number of interracial choices will decrease. We recall now that there is/little apparent interaction between the sophomore group of boys of the dominant group, and the second group of black girls. These boys seem to have greater interaction with white sophomore girls--a fact which has caused considerable tension within the school this year. This may change.

Cross-sex choices

The distribution of friendship choices within and across sexes describes another aspect of the school's social network. As a function of age, perhaps, we found only a small number of cross-sex choices, only 9% of the total.

* Ten of the eleven black freshmen who chose whites were girls, and eleven of the black sophomores who chose whites were boys; 15 of the 24 white freshmen choosing blacks were girls, and 19 of the 27 white sophomores choosing blacks are boys.

In addition, there were no mutual boy/girl choices. (Girls made 29 more choices than did boys, even though there are ten more boys than girls in the school. It is not certain whether the proportion of within-sex choices would remain the same if the additional boys had made choices. Perhaps, if they were peripheral members of the social network they would more likely know boys better than girls--but that is only a speculation.)

Looking briefly at the 9% of choices that were across sex lines, we see first that all were made by whites. No black student chose another black student of the opposite sex. Of the whites' choices, the eleven by boys were even in both school classes, and the fourteen by girls were the same. The freshmen girls, however, chose only sophomore boys, which supports both a "status" explanation and a contention that girls tend to go with older boys. Among the boy-to-girl choices, also, younger students chose older ones, while the older ones chose among themselves. More girls chose across racial lines than did boys, with six white girls choosing black boys. With some very popular, articulate, and talented black boys in the school, even community pressures less their effectiveness.

One more way of looking at the cross-sex choices is in relation to the six friendship groups mentioned earlier. The one distinct group of boys was, in general, attractive to non-group-members, of whatever sex. But only about a third of the boy-to-girl choices went to members of the most popular girls' group, and the boys' group received slightly more than a third of the girl-to-boy choices--which negates a purely "status" explanation for cross-sex choices. And cause and effect are hard to separate: do students receive cross-sex choices because they have status, or is well-developed heterosexuality itself a source of status? Probably both, and in a chronological order.

Cross-school-class choices

The tendency for "unusual" or cross-over choices to be made on the basis of status is suggested by the distribution of choices by school-class. In all, 92 of the total choices were between a freshman and a sophomore (31%). However there was substantial difference in who was doing the choosing--and, as we might expect, freshmen made about two-thirds of the choices that crossed school class lines. Neither sex nor race helps explain things within the freshmen ranks. We conclude that age alone is a basic factor: freshmen choose sophomores because they are sophomores; sophomores choose among themselves.

The sophomore-to-freshmen choices can be divided by sex, and we see that more girls than boys chose freshmen, which would not be expected by the conventional wisdom of girls seeking older companions, but in general the choices were within the same sex, with girls choosing girls somewhat more often than boys choosing boys. The attractiveness of the sophomore boys' group may keep down the number of boys' sophomore-to-freshman choices.

Choices in Home Groups

One purpose of the Pilot School's Home Group project is to allow students to get to know each other, to bring together students who might not otherwise rub elbows or talk. One crude way of evaluating whether they are achieving this goal is to examine the friendship-choice data (or, more precisely, the lunch-preference data), to see if people in the same Home Group are more likely to choose each other and whether there are more interracial, cross-sex, or cross-class choices. We need to keep in mind that the question was asked after only a few months of school, and that the question was asked in Home Groups which may have biased the responses in the other direction. In all, 66 of the total choices were within Home Groups--or 22%. I have determined

that this is considerably better than the chance probability. Further, however, the other kinds of analyses (cross-race, class, and sex) do not show many startling differences when the within-Home Group frequency is compared to the whole-school frequency, as shown in Table 2.

Table 2

	WITHIN-HOME GROUP CHOICES	WHOLE-SCHOOL CHOICES
interracial	26%	26%
cross-sex	9%	9%
cross-school class	40%	31%

The freshman-to-sophomore choice seems the only one found to be increased within Home Groups, and is certainly the least "sensitive" of all.

We looked at the number of mutual friendship choices within Home Group, to see if by chance there were more "stable" pairs there than elsewhere, but the fraction of choices that were reciprocated was about the same as in the school at large--around 35% or slightly under the 2 out of 5 predicted by Moreno. (He argued for five positive choices, and if we had used that form of questionnaire, perhaps more mutual pairs would have appeared.) One odd finding is that those mutual choices that there were within Home Groups fell within six of the ten groups: two had one pair each, three had two pairs each, and one had three pairs. Four Home Groups had no mutual choices, which might lead to the conclusion that some Home Groups are more cohesive than others. Careful observation of Home Groups would probably be necessary to understand the reasons. In some interviews later, students commented that they disliked their Home Group because they were separated from their friends. Rather than take advantage of Home Group to meet new people, students reject

the concept, and ask for changes in assignment. Reorganization of the Home Groups by staff in the second semester, along friendship lines, seems to recognize this unhappiness--functionally, if not on purpose.

Mutual choices

As a final bit of analysis, I will present the mutual choices. In the school as a whole there were 104, or 52 pairs, involving 64 students. As Moreno predicted, girls were involved in mutual pairs nearly twice as often as boys (34 pairs of girls, 18 pairs of boys). As we commented earlier, there were no mutual pairs between the sexes. Sophomores were involved more often than were freshmen, with cross-class choices a poor third (52%, 31%, and 17% of the choices, respectively). The greater number of sophomores making these pairs may be the effect of a year's experience, and we recall that freshmen tend to choose sophomores. This pattern fits Moreno's status prediction--that lower status members are involved less often in mutual choices, because they choose higher-status members, who choose among themselves. Close to a fifth of the mutual choices were interracial, a result which could give a relatively positive view of the racial situation at the school. Interracial mutual choices were always within the same class and sex--and more often were sophomores/girls, in keeping with the overall distribution of mutual choices.

We contrast the mutual choices with the friendship groups, and find that over half the mutual choices are outside the six popular clusters, however 60% of all the pairs involved a member of the major groups. So we could say that members of the six groups are represented disproportionately in the school's mutual choices. Students who are not included in the major groups--though not completely excluded from mutual choices--are less likely to be involved in a stable, mutual friendship relationship than are students who are

group members.

Conclusion

The effort required to analyze the simple three-choice sociometric almost requires one to have substantial faith in the results: can such labor have been in vain? The kind of statements that the "data" allows one to make are less startling, also, to a staff that has intimate contact with the daily social life of a school than to a more typically-organized faculty. There are flaws in the question itself, and we know little about what goes on in students' minds as they interpret "eat lunch with" as a behavior setting. A small-scale attempt to ask students for three people they would like to work on an English project with, produced disappointingly little differentiation. Then, too, students at the Pilot School have a jaundiced view of forms and questionnaires in general.

In the analysis we have omitted direct consideration of social class, which is a pity. We collected information on every student from advisers, asking them what were parents' occupations, but unfortunately many advisers could not be precise enough to allow useful coding of that for SES.

Explanations suggested for patterns observed in the responses are subject to two cautions: first, the "patterns" were not subjected to significance tests, and second, the explanations were ad hoc and tentative, not integrated into a theory of how the Pilot School affects social relationships of students. We entered the second phase of the study with a large amount of hunches, hypotheses, and questions, to be checked out in further conversation with students.

STUDENTS' VIEWS OF THEIR OWN GROUPS

During several months of the spring, students at the Pilot School were interviewed as part of a study of the social network of the school. We have been interested in defining factors which contribute to social groupings among the students -- those which encourage formation of friendship groups and those which separate students from each other. The interviews were designed to approach this question in two ways -- first, to elicit the students' own views of the school's social network (whether groups exist and if so what these groups are, why certain students are friends with each other but not with other students, etc.), and second, to compare the students' views of the school, of the "outside world," of their own futures, in order to see what similarities and differences existed, both between and within groups of friends.

A large amount of data has been received during the course of this project, only a small part of which will be reported here. Our initial step, a sociometric questionnaire (in which we asked each student to list the three people in the school with whom he would most like to eat lunch), provided one kind of picture of the social network -- a picture based on the clustering of choices and the distribution by race, sex, school year, homegroup. Although this technique has a number of important limitations, it did suggest that there were distinct friendship groups in the school. The six groups which we determined from the choices made formed the basis of the next step -- individual interviews with 35 students who were either members of one of the groups or who had chosen, on the sociometric questionnaire, someone who was a group member.

Finally, I met with three of the six friendship groups, with each group together. The interviewees were asked about other groups of students, were presented differences that had arisen between members of their own group in the individual interviews as well as similarities between their answers and those of non-members. During this final step, as well as during the previous ones, a number of questions were raised and a wide range of topics were covered. In this paper, however, we wish to present our more general conclusions regarding the social network of the pilot school and the possible implications for understanding what goes on at the school, how the functioning of the school interacts with the social world of the students.

The most striking feature of the data received is the strength of the student social system, particularly in relation to the ideology and actions of individual staff, the general objectives of the school, and the statements of some students as well as staff. In general, there seems to be a dichotomy between the way students view the social network and the adult, or official school view of how students should group themselves or should interact. This dichotomy is reflected in some of the actions of the adults and reactions of the students -- for example, the implementation of an hour of Home Group during which students would interact with other students from different elementary schools, backgrounds, etc., rather than just with their friends. Many students disliked this hour partly because they were with people they did not like or who, in any event, were not their friends.

I would suggest that one way of thinking about the questions involved may be in terms of "community" and "diversity." That is, the objectives set up and the ideology of the school call for creation of a "community" in which the "diverse" members join together, learn to understand and

enjoy each other. Thus, there have been "community day," school outings, the Home Groups, all-school judicial and governmental meetings, etc. The students, on the other hand, seem to emphasize the diversity more than community. They agree that everyone does know each other (which may prevent extreme polarization, riots, etc.). But, there are still a number of very distinct groups of friends, and students maintain strong feelings about many other students who are not members of their own group. The activities in which the entire school participates, it seems, do not result in the all-pervasive kind of community desired by the adults or by the school objectives. It is true that students get to know each other -- they see how other students act, what other students like to do. As a result, they gain more evidence by which a student may be included or, just as likely, excluded from friendship. As one girl put it about Home Groups, "You may get to hate a person a little less -- or a little more."

That students at the Pilot School do see differences among themselves and do form friendship groups is very clear. Virtually all who were interviewed agreed that there were groups of friends who "stuck together." In fact, some of the students who made statements about everyone getting along, the school being "one big happy family" (in both interviews and conversation) were also most adamant in stating that groups exist and in expressing dislike for certain other students or groups. We found general agreement on the make-up of groups we had found on the sociometric questionnaire, though some differences appeared (partly, it seems, as a result of the groups changing somewhat during the course of the year). In addition, the groups interviewed perceived a distinct group which had not appeared in the sociometric responses. This consensus, however, was not maintained as we moved on to other aspects of the social network --

particularly in regard to why groups formed as they did and whether one group in the school was an "in-crowd."

In questioning the students about an "in-crowd" we had in mind the idea of one group of students who held a dominant position or were looked up to by most other students. Such a construct has been used in several other general studies of adolescents. From observations at the school, it appeared that such a group might exist. The students, however, did not see "in-crowd" and dominance as equivalent. Most claimed that no group was looked up to by most other students, but the response to whether an "in-crowd" existed was mixed. Some students claimed that their own group was the in-crowd. Others said that everyone had their own -- or felt that the group they hung around with was -- the in-crowd, a statement which seems to be supported by the fact that those who felt they were in the in-crowd represented a number of different groups. The definition usually given for in-crowd was "kids who know what's happening." Rather than expressing dominance or the object of admiration, then, the idea of in-crowd represented an awareness of what was going on. Some students thought of their own group in these terms and others were aware that different groups thought of themselves in this way.

In the interviews, I tried to determine what factors students say are important in defining who belongs to a particular friendship group and how one group differs from another. When asked individually what they had in common with their friends, answers such as, "We all get along," "We live near each other," "We all smoke," "We're all crazy" were obtained. Or, students pointed to similar interests, such as sports among the boys. On the whole, the students answered in general terms, saying that they did

the same things, had the same interests, etc., rarely as "not like such and such group."

In the group interviews, on the other hand, the students were asked to think in terms of other groups as well as their own in describing why friends were grouped as they were. When asked about other groups in the school, all three of the groups interviewed described the same basic picture with particular emphasis on one out-group of students who were seen as different from themselves. This group was not a sociometric fact, but was a construct or invention of the students describing it. The exact differences were defined in varying ways by each group; however, certain consistencies appeared as did the repetition of strong feelings about a certain type of student. The picture obtained was one of definite divisions among the students at the school.

The one group of boys interviewed saw the division in terms of being poor or rich, tough or sissy. They saw themselves as having been brought up on the street. They could win fights, played sports, had no money, were "cool" and tough. When asked about other groups, they described a pack of "intellects," who spent all their time reading books, and were "Mama's boys." To one of the girls' groups, the basic definition of this same "group" of students was that they "just wanted to talk about politics rather than have fun and act crazy at times." A second group of girls saw the others as "faggots" who got good grades in school. Their own group got into trouble all the time, cut class, went to the girls' room to smoke, were more tough. It is interesting that the latter group of girls included other "good students" into their own group at times -- "All have A minus, B plus personalities" -- while, for the most part, the "intellects" or "Hippies" were seen as a distinct group to the students interviewed.

The tendency of one of the groups interviewed to group all good students together leads us to question the accuracy of the students interviewed in describing other students and groups. In their own minds all good students may be lumped into one group. If so, this way of thinking about other students is an important one to see. On the other hand, distinctions were usually made, even between good students, suggesting that in certain circumstances these distinctions are either ignored or not known. Factual information about other students, for instance, was often unknown. The students interviewed said they did not know, on the whole, what the occupations of other students' parents were or what kind of house the family lived in -- though this information was known about certain individuals. The same students apparently felt comfortable giving a very specific description of how the "hippy" students lived -- "big house, five or ten cars, the parents carrying their children to bed when they come home stoned." When asked to explain how it was that some of the "hippies" had similar interests as themselves -- such as sports -- such a possibility was usually dismissed. The others couldn't really "live sports" the way the boys interviewed did. Descriptions of others, then, seem to be based on selective use, or absence of facts. This stereotypic quality to the perceptions of the others is not surprising, but rather seems to fit into the overall way the students are viewing other students in the social network. That is, the point is not that the students inaccurately portray others -- the important fact is that they think of the others as basically different, as less acceptable or desirable.

On the other hand, differences within the various groups' members were repeatedly minimized -- they were either seen as unimportant or were

claimed to be a necessary part of friendship. Large differences in the educational or economic futures which individuals hoped for or predicted in individual interviews were shrugged off within the friendship group setting. In fact, students did not think these differences would keep them from being friends in the future. Some differences are the glue of friendship; others are the stuff of rejection and prejudice -- and the same objective difference can produce either result. In the group interviews some of the differences we had noted in responses during the individual interviews disappeared. One striking example was the boys' attitudes toward the draft. In the individual interviews, two of the boys expressed eagerness to go to Viet Nam and fight, while some of the other boys (great friends of the first two) expressed criticism of the war and stated they were considering refusing the draft. When the group met together, these two extremes dissolved into a middle ground -- "no one wants to go, but if we have to we will." This stance then became one of the distinctions between the "hippy" group and themselves. They saw themselves as the ones who would have to go fight, while the others "sat behind big desks, marched in protests, or ran the government," not altogether an unrealistic picture. Finally, when asked why group members had picked different things as most important to them (represented by pictures -- e.g., the war, slums, family, dating, cars, etc.) the interviewees responded somewhat defensively that they were all individuals, that these differences did not matter, or that one of the important aspects of friendship is not being exactly the same.

Another interesting means of minimizing differences among each other was the denial by individuals of a trait that might make them different from the other group members or place them among members of a different group. The most prevalent variable was wealth. In each group, certain

individuals found the need to prove to the others that they were not rich -- in one case the student stated that though her father made about \$600 per week, they had so many debts that they really had no money. The boys discussed with pride the roughness of each one's neighborhood, acknowledging even by one that each member certainly lived in tough circumstances. Although one member's father was a business executive studying in this country for an advanced degree, his friends loyally imagined for him a back-home ~~scenario~~ so that he could maintain his status. Among one group of girls the issue was class cutting. Responsible individuals denied that they always went to class, since the others talked of cutting as something they often did with their friends. Along these same lines, students would at times "vouch for" other students who were not in their group. For instance, someone might be a brain and get good grades, but they did not always talk about school, did not flaunt their intelligence as did the "hippies." Or, though someone might have money, he still was not like the "hippies" because he was not a sissy, he cut class, had teachers chasing him, etc.

We have seen that all three groups which were interviewed saw a "hippy" group as different from their own, whether in brains, wealth, or goody behavior. While other groups of students were also seen as being different, it was the "hippies" or "intellects" who received the strongest comments and greatest amount of attention in discussion. Some interesting responses appeared when the groups were asked who they felt to be similar to them. Two of the groups -- one of the girls' and the boys' -- chose a group of black girls as most similar. The boys' reason was that these girls were also tough, poor, were the only other students who "know what's happening." However, these boys appear to interact most with the group of girls who did not choose the same black girls as similar, rather than with the black girls, or with the other group of girls who were interviewed. The latter

group also saw toughness as a similarity between themselves and the black girls, as well as fighting and going to the girls' room to smoke. When asked why they were not all in one group, the girls responded only that they went to the girls' room at different times because their class schedule was different. It is interesting that earlier in the school year, in the individual interviews, some members of this group of girls had expressed fear of being beat up by the black girls. But again, this fear can be seen in terms of a similarity, because the girls interviewed felt there were also some students who were afraid of them. Further study would be necessary to get a better idea of the amount and kind of interactions taking place between groups in order to determine the relation between perceived similarity and association. It seems clear, however, that this relation is not a simple one.

While it is not the purpose of this paper to solve the problem of why students group themselves the way they do, we have tried to uncover some of the factors that may be involved. It is obvious that differences do exist between students, and differences are perceived by the students. In fact, it may be that one of the similarities across most of the students is that they tend to see those who are not in their own group of friends as different and, perhaps, not quite as good. A number of interpretations for the divisions that appear are possible, some of which have been implied earlier. For instance, one of the interpretations might point to the friendship groupings as a manifestation of social-class differences. The group of boys placed great emphasis on attributes which sound like social-class descriptions -- rich vs. poor, being brought up on the street vs. being an "intellect," etc. The impression of a different type of life is suggestive of social class differences, and within the school there are large SES gaps between Peabody School professional children and Washington

Elms ADC families. However, it is also clear that differences exist within groups. Certain individuals even in the "tough guy" groups have wealthier families, & /or parents with more prestigious occupations. Although students attempt to deny wealth, it appears that group members know who has more money. This fact does not seem to exclude one from group membership, though the person may have to prove that he is not like the other "rich kids." Clearly any study which drew inferences from social class alone would miss some complex interactions.

One study of adolescent social groups by Dexter Dunphy points to the heterosexual role as of prime importance in the development of groups (Dunphy, in fact, states that high status goes to the group with the most mature heterosexual dating structure). Both groups of girls interviewed mentioned boys as something they had in common with their friends or talked about most of the time. Both also stated that the "hippie" group did not go out on dates, that the girls did not seem interested in boys. It seems, then, that the relationship with boys may have something to do with the formation of the girls' groups. It is less clear whether this element is important in the social groupings of the boys -- although the one distinct group of boys found in the sociometric questionnaire does appear from observation (not their own account) to have more members involved in more interaction with girls than other boys in the school.

One more factor of interest is called "cognitive complexity." It is clear that certain individual students think in different ways than do others. For instance, while most students see their relationship to the war as a draftee -- they may have to go some day and may get hurt, -- a few in the same groups refer to larger issues of society, commenting on less personal

implications of the war. Similarly, in one of the group interviews, there was one student who often refused to accept the generalities being made by other group members, repeatedly arguing with her friends and trying to subdivide some of the stereotypes they were blithely using. We could speculate on the reasons for the vast difference between a few students and a great many others on this dimension -- which is not at all correlated with social class alone. Who are these curious youngsters whose way of thinking seems so unusual? What process develops that capacity which they seem to have -- and indeed, how would we measure it? One current theory would argue that they must be resolving a series of conflicts in their thought which others repress or deny; what are the sources of both the educative conflicts and the ways of resolving them? But our talks with students have only served to identify some who are unlike others -- a feat that is performed regularly by teachers and other mortals. We have little to offer by way of explanation about these "marginal men."

In trying to draw conclusions it should be kept in mind that the focus of the interviews has been on those students who belong to a distinct friendship group, defined on the basis of the sociometric questionnaire -- and that only three of these groups were given both individual and group interviews. Those students who are not members -- either isolates or involved in less extensive relations with other students -- might have a different picture of the social network. For instance, the few "non-members" interviewed seemed to be somewhat less likely to say there were distinct groups of friends or that there was an in-crowd. The comparison of their view of the social network with students who are part of a larger group would provide a different perspective. An essential extension of the work done so far would be to get a more precise definition of the "group" and then confront

the "hippies" to gain their perspective of the social network. It would be most interesting to see if the same processes are going on -- e.g., do they see other groups as different and less desirable, do they minimize differences among themselves, is wealth something they also deny and if so is this denial for the same reasons as the students we interviewed?

We should also keep in mind that different types of social relations exist within the school. For instance, in talking about the interaction between groups we are already dealing with two kinds or relations -- one a unisexual, small, intimate group of friends (often called a clique) and the other a larger group, or association of cliques, primarily involving heterosexual interactions. There are also instances of overlap, where members of one group become friends with someone from another group. It is likely that different factors are important in different kinds of social relations -- for example, heterosexual maturity may be more important in the association of male and female cliques than in the individual, unisexual cliques. It may also be that different factors operate -- or that the degree of importance changes -- in the formation of positive associations as opposed to the exclusion of individuals or maintenance of separations.

It does seem clear that a strong student social system exists and functions quite independently of the adults in the school. While the staff stresses close relations and "community," the students are very aware of differences between themselves and others. In deciding where the energies of the staff should be spent, it seems that the strength of the student culture must be kept in mind. The fact that students emphasize differences and use gross stereotypes where the adults have highly complex and individualistic views of students, highlights the failure of a number of settings in school to generate intergroup dialogue. That this way of thinking is basic

to the student severely limits the effect of those adult ideas and actions which run contrary to it. Obviously, differences exist between students. On the whole, however, the students seem to function in a social environment of their own making. The social network they have created (and will continue to create) is a basic factor in the school and will, it seems, withstand much of the effort to create "community," to bring diverse backgrounds and interests together. This is not to say that the adults should not attempt to lessen the stereotypic attitudes, or unfair treatment by students of each other. Rather, by understanding the way the students perceive and think about their own social network -- particularly the emphasis they place on differences -- the adults may gain a better grasp of what is and can be the staff role in relation to the students, and determine when and how they can intervene in a positive way.